

Flight Scientist Report  
Saturday 02/26/2022 ACTIVATE RF128

Flight Type: Statistical Survey Flight (Refueling Day at Providence, RI)  
Flight Route: KLFI ATLIC ZIBUT LACKS YAHOO SKOWL KPVD  
Special Notes: First of two flights with refueling at Providence, RI

### **King Air**

Pilot report (Wusk):

First flight of a planned two flight day, coincident flights with the HU25. Planned refueling in New England. Flight route flown was KLFI ATLIC ZIBUT LACKS YAHOO SKOWL KPVD. UC12 filed for FL200 due to know high cloud conditions. Known minimum data for remote sensing due to high cloud conditions along route. Clear above for the last 1/3-1/4 of the route. Crew was Sandeen, Wusk, and Shingler.

Flight scientist report (Shingler):

KLFI ATLIC ZIBUT LACKS YAHOO SKOWL KPVD

Mid level cirrus along track at most all levels. Low level deck between 4-6kft. RSP shuttered when deep in the cirrus around 1430. Broke out of the dense cirrus around LACKS. Low level deck tops descended to around 2kft near Nantucket.

4 Sondes dropped  
ZIBUT  
1/2 ZIBUT/LACKS  
LACKS  
COAST

### **Falcon**

Pilot report (Baxley):

HU-25 coordinated flight with UC-12; Thorson/Elder, Crosbie/Winstead KLFI ATLIC ZIBUT LACKS YAHOO SKOWL KPVD, with refueling in KPVD. Weather as expected, flight flown as briefed, no issues noted.

Flight scientist report (Crosbie):

Stat survey remote base PVD. Extensive low cloud under a dense high cloud deck for most of the flight. Initially the clouds were broken fair wx Cu that thickened and joined up forming a stratiform deck near ZIBUT. There was significant variability in cloud top height and cloud bases were not uniform. A further thickening of the cloud was observed to the NE and near LACKS some mixed phase precip was observed.

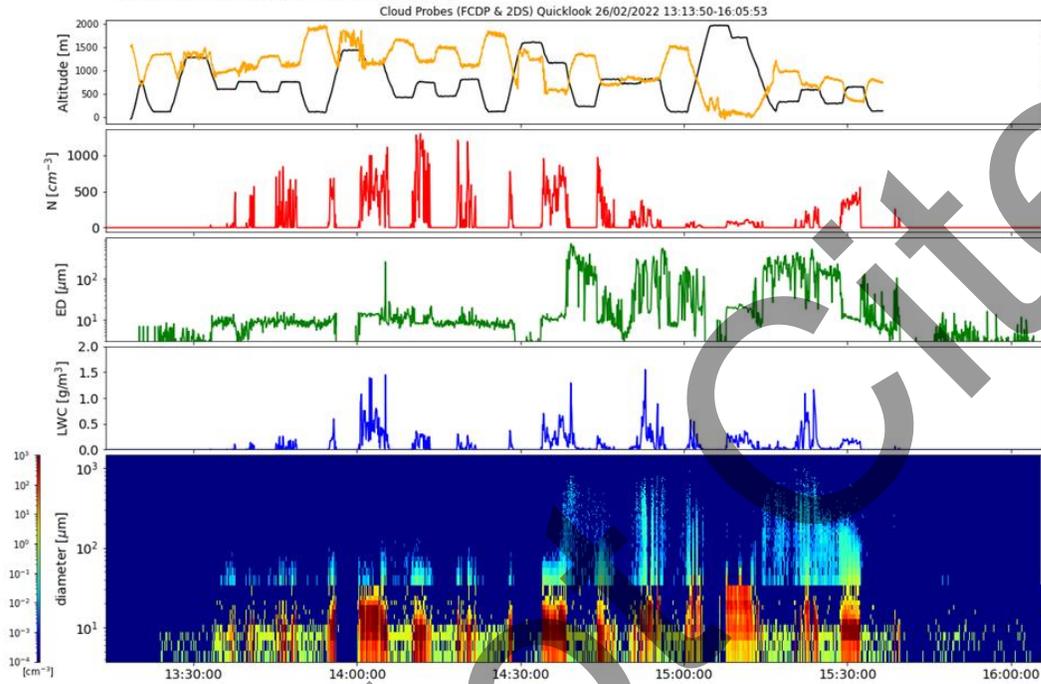
The clouds took on a more broken structure with clusters of thicker Cu with precip surrounded by more clear regions. On the into wind leg inbound to the coast the clouds returned to the more uniform structure and there was some evidence of supercooled drizzle. The cloud edge was near Nantucket Island.

Do Not Cite!

# Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie



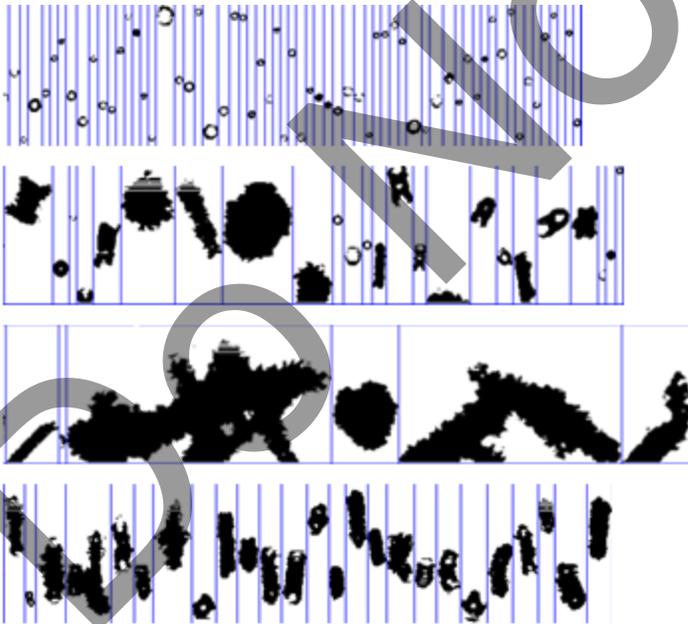
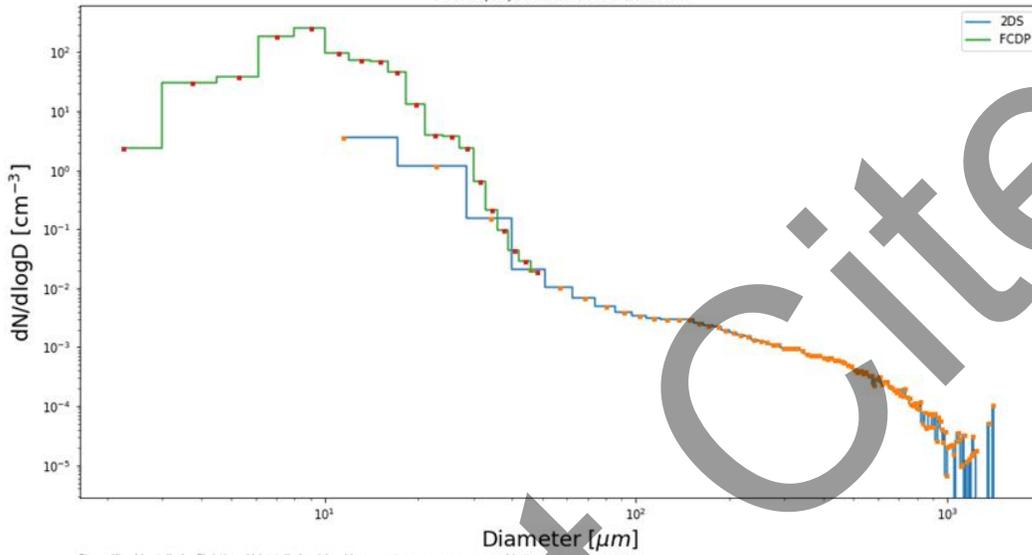
Simon.Kirschler@dlr.de, Christiane.Voigt@dlr.de, richard.h.moore@nasa.gov, ewan.c.crosbie@nasa.gov

# PSD ACTIVATE

preliminary data, only for quicklook use  
Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

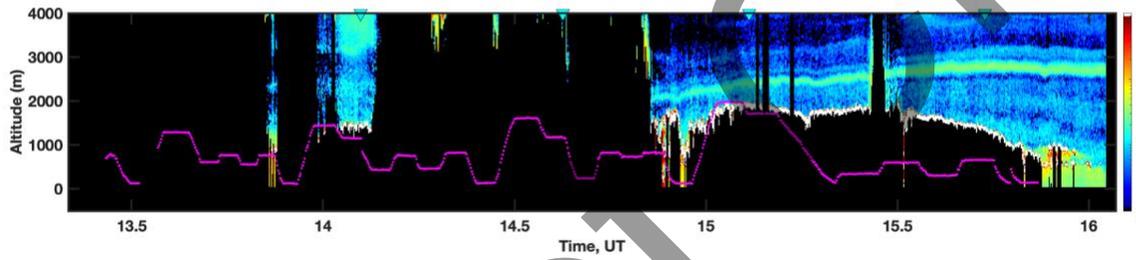
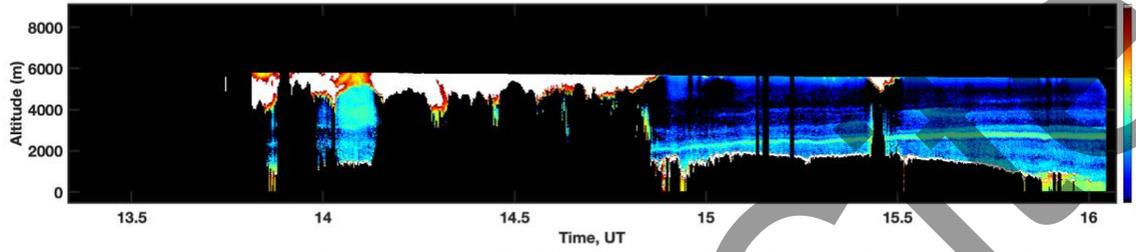
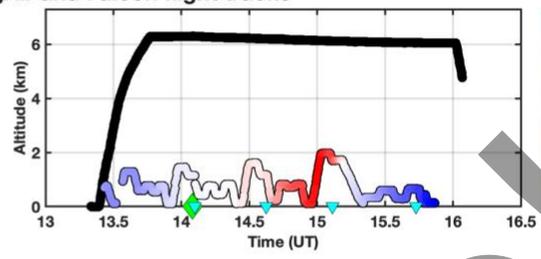
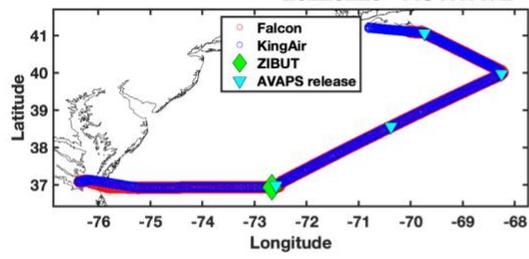


PSD 26/02/2022 13:13:50-16:05:53



Mixed phase clouds with only ice Precip.

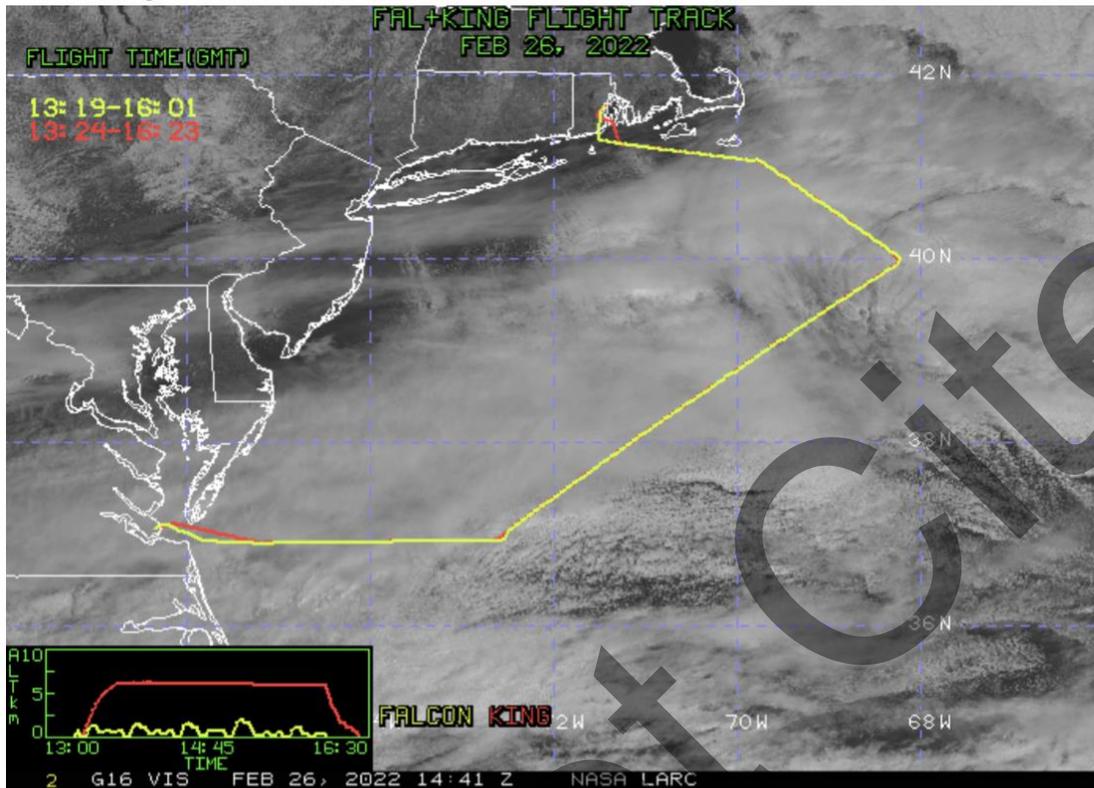
20220226 - ACTIVATE - KingAir and Falcon flight tracks



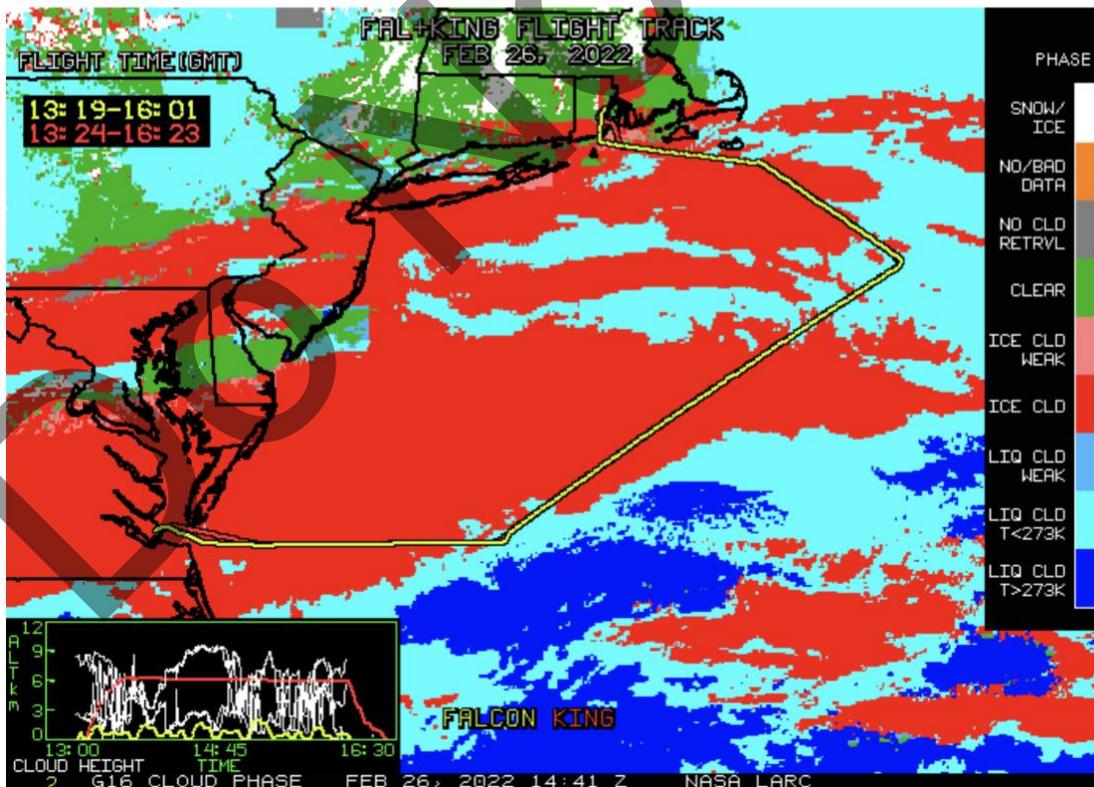
Aerosol Scattering Ratio (532nm)

DO NOT

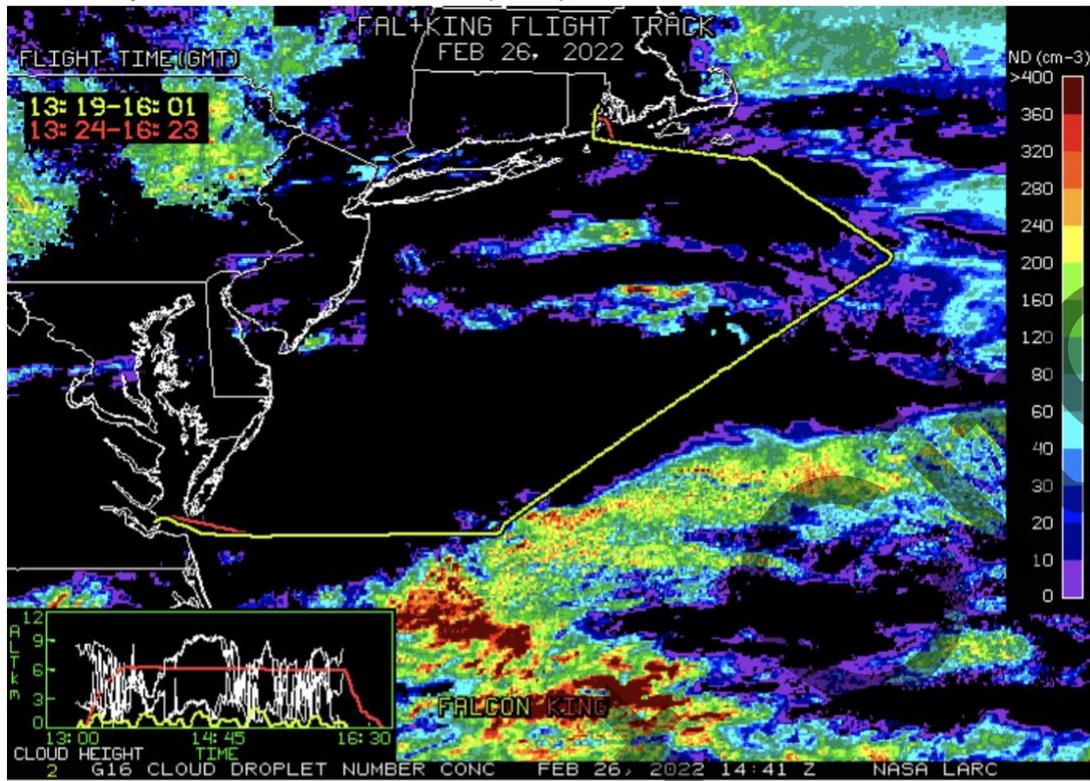
NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 128, 14:41 UTC Feb 26, 2022  
Visible Image



Cloud Phase



### Cloud Droplet Number Concentration (cm-3)



### Cloud-Top Height (Kft-ASL)

